

In re Fahrni, 100 USPQ 388 (CCPA 1954)

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## **In re Fahrni**

**(CCPA)**

**100 USPQ 388**

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**Decided Feb. 3, 1954**

**Appl. No. 6002**

**U.S. Court of Customs and Patent Appeals**

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### **Headnotes**

#### **PATENTS**

##### **1. Court of Customs and Patent Appeals-Issues determined-Ex parte patent cases (§ 28.203)**

On appeal from rejection of process claims, court cannot determine whether product claim, which might have been presented, would have been patentable.

##### **2. Patentability - Anticipation - Process (§ 51.225)**

Applicant cannot obtain process claims because of alleged differences between proposed ingredients used by him and those used by prior patentee together with alleged differences in their final products; proper course is to compare steps with steps, not products with products or ingredients with ingredients.

##### **3. Claims-Indefinite-In general (§ 20.551)**

#### **Words and phrases (§ 70.)**

Since "finely divided" and "coarse" are purely relative and indefinite, patentability cannot be predicated thereon, even assuming that they constitute process limitations.

##### **4. Patentability - Anticipation - Process (§ 51.225)**

"Making" of particles is inherent in any process utilizing particles; hence, it cannot constitute distinguishing step in process.

##### **5. Patentability-New use or function-Process (§ 51.561)**

Statements of function and/or result cannot be relied upon to differentiate process claim over prior art process.

**6. Court of Customs and Patent Appeals-Issues determined-Ex parte patent cases (§ 28.203)**

Even if examiner erred in allowance of certain claims, applicant may not be heard to complain on appeal from rejection of other claims, since error inured to his benefit.

**7. Patentability-Evidence of-Comparison with allowed claims or patents (§ 51.457)**

Patentability of rejected claims may not be determined upon basis of allowed claims in application; comparison must be made with prior art.

**Particular patents-Plywood**

Fahrni, Process for the Manufacturing of Compound Compressed Plates Made of Layers of Pieces of Wood and Binding Materials, claims 25, 27, 30, 35, 36, 39, 42, 45, and 55 to 58 of application refused.

**Case History and Disposition:**

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Appeal from Board of Appeals of the Patent Office.

Application for patent of Fred Fahrni, Serial No. 630,619, filed Nov. 24, 1945; Patent Office Division 67. From decision rejecting claims 25, 27, 30, 35, 36, 39, 42, 45, and 55 to 58, applicant appeals. Affirmed.

**Attorneys:**

James M. Heilman and Heilman and Heilman, both of New York, N.Y., for appellant.

E. L. Reynolds (J. Schimmel of counsel) for Commissioner of Patents.

**Judge:**

Before Garrett, Chief Judge, and O'Connell, Johnson, Worley and Cole, Associate Judges.

**Opinion Text**

**Opinion By:**

Garrett, Chief Judge.

This is an appeal from the decision of the Board of Appeals of the United States Patent Office in so far as it affirmed the rejection by the Primary Examiner of twelve of the twenty-three claims, which, after numerous amendments during its prosecution in the Patent office, remained in the application.

Nine claims, numbered 46 to 54 inclusive, were allowed by the Primary Examiner and two, numbered 37 and 40, were allowed by the board. Those involved before us are numbered 25, 27, 30, 35, 36, 39, 42, 45, 55, 56, 57, and 58. All are drawn to the method.

The application, serial No. 630,619, filed November 24, 1945, is entitled "Process for the Manufacturing of Compound Compressed Plates Made of Layers of Pieces of Wood and Binding Materials."

The finished article is a form of what is commonly called plywood.

The specification of the application declares that "The products so far known of this type, made of wood pieces and the like mixed with a binding substance, showed great disadvantages," and examples of such alleged disadvantages are given. It is then asserted, in substance, that the difficulties incident to overcoming such disadvantages have been eliminated by the process to which all of applicant's claims relate.

Of the claims embraced in the appeal to it the board quoted Numbers 25 and 37 as illustrative. Claim 37, having been allowed by the board, is not involved in the appeal to us but for reasons hereinafter stated we find it desirable to quote it in this decision.

Claim 25 which is the broadest of all the claims before us reads:

25. A process of manufacturing a a composite wooden board, comprising the steps of making coarse wood pieces from a wooden material; applying a binder substance to said coarse wood pieces so as to obtain at least slightly humid binder treated coarse wood pieces; cutting other wood material to substantially flat shavings; applying a binder substance to said flat wood shavings so as to obtain at least slightly humid binder treated flat wood shavings; forming porous core layer of said at least slightly humid b inder treated coarse wood pieces; forming a surface layer of said at least slightly humid binder treated flat wood shavings; superimposing said porous core layer and said surface layer upon each other; and applying heat and pressure to said superimposed layers so as to cause firm adhesion of said at least slightly humid binder treated course [sic] wood pieces and said at least slightly humid binder treated flat wood shavings to one another while permitting the steam formed by applying heat to escape into sa id porous core layer of coarse wood pieces, thereby obtaining a composite wooden board composed of a porous core layer and a surface layer being substantially impervious to water and having a high tensile strength and firmly adhering to said porous core layer.

All the rejected claims, including No. 25, were held unpatentable over a patent, No. 2,066,734, issued to Emil C. Loetscher January 5, 1937.

The Loetscher patent contains both process and product claims. It bears the title "Decorative Building Material and Method of Making Same," and the first two paragraphs of its specification read:

The object of this invention is to produce a hard, relatively water-proof, dense building material having a high degree of decoration.

The product may be described as a flat panel, board or molding with a homogeneous core and two relatively thin surface layers, one or both of which may be decorated.

In its decision the board set out from the patent specification the ingredients which entered into (a) the composition of the *core* of the Loetscher board and (b) the ingredients which entered into the *surface layers* which were bound to the core.

It also described the Loetscher *process* hereinafter discussed.

The elements (a) and (b) supposedly were elements which supported the Loet

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scher *product* claims, but they do not seem to us to have any relevancy to the question here before us for determination because appellant has presented no product claim. His specification recites ingredients to which it is proposed to apply a described process. Seemingly, a product claim might have been based upon the composition of matter made up

[1] of those ingredients. Whether such product claim would have been patentable cannot be determined here, but

[2] it is clear that appellant seeks to obtain *process* (not product) claims because of alleged differences between the proposed ingredients used by him and those used by the patentee together with alleged differences in their respective final products.

In the case of *In re Swain et al.*, 33 C.C.P.A. (Patents) 833 at p. 836, 154 F. 2d 118, 69 USPQ 72, 74, which involved only process claims, this court declared:

\* \* \* the steps comprising the process are the essential features for consideration in determining the right of appellants to a patent-not the particular material to which the process is applied nor the particular substance obtained by its application.

That principle is apropos here and, acting upon it, the proper course to pursue in deciding the instant controversy is to compare steps with steps not products with products.

Unhappily, the brief before us on behalf of appellant makes no comparison of steps without including the ingredients used by appellant as parts of the steps. This is well illustrated by an excerpt from the brief under the heading "Comparison of the Invention With the Loetscher Disclosure," which reads as follows:

Upon utilization of the present process in the manufacture of a composite board, a product is produced which is far superior to any similar board which might or could be manufactured under the processes of the prior art in general and specifically under the process of the Loetscher Patent No. 2,066,734 cited against the claims on appeal and discussed immediately supra. The superiority of the board produced by the novel process of the present invention resides, inter alia, in certain characteristics which will now be discussed hereinbelow:

1. The process of the present invention provides a board which has the surface layer or layers thereof consisting entirely of flat shavings treated with a binder substance. As indicated in the discussion of the invention supra, with the binder material kept within the range of from 4 to 14% by weight of the shavings which constitute the remainder of the surface layers, the shavings therefore amount to *at least* 85% of the total weight of the surface layer. Furthermore, the surface layers of this invention *do not contain any finely divided woody particles* (which separate the shavings and weaken the structure) or sulphur as disclosed by Loetscher. In any case, the percentage by weight of the shavings in the surface layer of Loetscher *never exceeds* 60% whereas in the case of the present invention the percentage of shavings comprises *at least* 85% of the surface layer.

This feature of having only flat wood shavings as the main constituent of the texture layer in addition to the necessary binder material assures that the shavings are *in contact with each other* over large surface areas thereof without any extraneous material such as sawdust, etc. intervening. This difference contributes to the manufacture of a board having entirely different properties from the board produced by the Loetscher process. \* \* \*

There was included in the record a paper headed "Remarks," which was filed in connection with amendments proposed March 10, 1950, among them one cancelling all the claims then on file and substituting others. These substitutes include most of those now before us and all of those which were allowed by the tribunals of the Patent Office. The Primary Examiner allowed claims 46 to 54 inclusive, in an action on November 2, 1950, responsive to those amendments.

In the paper entitled "Remarks" the following appears:

Applicant's invention consists, as clearly set forth in the newly submitted claims, in a process of manufacturing composite wooden boards, comprising the steps of:

- (a) making coarse wood pieces from a wooden material;
  - (b) applying a binder substance to said coarse wood pieces so as to obtain binder treated coarse wood pieces;
  - (c) cutting wood material to substantially flat shavings;
  - (d) applying a binder substance to said flat wood shavings so as to obtain binder treated flat wood shavings;
  - (e) forming a first layer of said binder treated flat wood shavings with said shavings directly superimposed upon one another and extending substantially parallel to the faces of said first surface layer;
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- (f) superimposing on said first surface layer a core layer of said binder treated coarse wood pieces;
  - (g) superimposing upon said core layer a second surface layer of said binder treated flat wood shavings with said shavings directly superimposed upon one another and extending substantially parallel to the faces of said second surface layer; and

(h) compressing said superimposed layers so as to cause a firm adhesion of said binder treated flat wood shavings in said surface layers and of said binder treated coarse wood pieces in said core layer to one another and to cause also a firm adhesion of the layers themselves to one another.

The foregoing constitutes a more specific analysis respecting the steps that make up appellant's process than does anything in the appellant's brief before us, but even in that paper the only features relied upon to distinguish from the steps of the reference are the alleged differences in (a) the ingredients and (b) the final products. This is apparent from the following excerpts from the "Remarks" paper:

\* \* \* He [Loetscher] discloses a method for making a decorative building material in which a core is made from the following ingredients: 50% of finely divided wood fibers, 34% of highly resinous cellulosic material, 10% of sulphur, 5% of phenol formaldehyde synthetic resin, and 1% of hydrated lime. The cellulosic material may be stump-wood or a material obtained from coniferous trees. In any case the core material has a different composition from the core material according to the application and is made in a different manner. Furthermore, the proportion between wood and nonwooden additions is in Loetscher's core material 84:16 whereas in the application it is 96:4 or even higher.

The cover layers of Loetscher, No. 2,066,734, consist of 15% of finely divided woody particles such as pinewood flour, 15% of a synthetic resin of the bakelite type, 10% sulphur, and 60% of ornamental particles such as small flaky chips of wood which are paper-thin and preferably have the thickness of the order of 1/100 inch. The ornamental chips or flakes can be varied from 10% to 60%.

This is an entirely different cover layer from that obtained by applicant's process according to which the cover layers consist entirely of wood shavings treated with a binder amounting to maximally 14%. The ornamental flakes of Loetscher, No. 2,066,734, constitute only a part of the cover layers and not even necessarily the main part thereof for the content of the ornamental chips may be reduced to 10%.

In the brief of the Solicitor for the Patent Office the steps appearing in the broad claim No. 25 are stated as follows:

1. Making coarse wood pieces from a wooden material.
2. Applying a binder substance thereto.
3. Cutting other wood material to flat shavings.
4. Applying a binder thereto.
5. Forming a core layer from the coarse material.
6. Forming a surface layer from the shavings.
7. Superimposing the layers.
8. Applying heat and pressure to the superimposed layers.

It will be observed that the order of the steps is the same as that followed by appellant in the excerpt from the "Remarks" paper quoted supra, but the Solicitor omits statements of results and functions, and points out the similarity of the pertinent process steps taught by the Loetscher patent, as follows (reference to pages of the record being deleted by us):

This [No. 25] claim was rejected as failing to differentiate patentably over the process of Loetscher which was considered to disclose similar steps in the production of a multi layer board. Analyzing the steps, it is noted that steps (1) and (3) relate to obtaining the wood particles which go into the production of the layered board. These steps are of no significance in the combination, since it is immaterial patent wise how the woody particles are obtained, since the obtaining of such particles is inherent in the process of the reference also. In re Lincoln et al., 29 C.C.P.A. 942, 126 F. 2d 477 [ 53 USPQ 40 ]. Steps (2) and (4) call for the application of binding substance to the woody particles to be used in the formation of the individual layers. Those steps are fully and clearly set forth in the reference, the core layer woody material being sprayed with a dilute solution of the water soluble synthetic resin binder, and the surface layer woody particles being sprayed with a diluted Bakelite varnish. Steps (5) and (6) then call for the formation of core and surface layers of the binder treated woody particles of steps (2) and (4). The patent clearly discloses these steps. Step (7) calls for the superimposing of the formed layers upon each other, a step which is obviously present in the reference. Finally, step

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(8) stated that heat and pressure are applied to the superimposed layers. Loetscher fully and clearly discloses that step, too.

Appellant contends that claim 25 differentiates in process steps, comparing particularly the step of "making coarse wood pieces from a wooden material" with Loetscher's use of finely divided wood fibers. Since the expressions

[3] "finely divided" and "coarse" are purely relative and indefinite, patentability cannot be predicated thereon, even assuming that they constitute process limitations-In re Eiane, 38 C.C.P.A. 1141, 189 F. 2d 1004 [90 USPQ

[4] 87]. Moreover, as pointed out above the "making" of the particles is inherent in any process utilizing particles, and hence it cannot constitute a distinguishing step in the process.

Further, appellant contends that the formation of the porous core layer of the binder treated coarse particles is not met by the reference, particularly when that step is considered in combination with the step of applying heat and pressure to the composite. What makes or insures the formation of a "porous" coarse layer is not clear, either from the claim or from the specification. Apparently, the relative proportions of woody material and binder are important factors. Certainly, if the binder is in amount greatly in excess of the coarse woody material, no porous layer could be formed. Hence, without some designation of the relative amounts the claim does not definitely distinguish from the reference in this operation. \* \* \*

We regard the foregoing statement of the solicitor, made in support of the position taken by both the Primary Examiner and the Board of Appeals as to claim 25, as being entirely sound, and we are of opinion that the reasoning as to that claim applies with equal force to claims numbered 27, 30, 42, 55, and 57.

The remaining question for determination by the court is whether in any of the claims on appeal there are specific limitations which render them patentable over the reference.

As has been stated the Board of Appeals allowed claims 37 and 40, which had been disallowed by the Primary Examiner, and claim 37 was quoted in its decision as illustrative of the two.

We think it may aid in understanding the precise issue under discussion to reproduce claim 37, to the end that the exact ground upon which its allowance was based may be seen clearly. It reads:

37. A process of manufacturing a composite wooden board, comprising the steps of making coarse wood pieces from a wooden material; applying 3.5% of a binder substance to said coarse wood pieces so as to obtain slightly humid binder treated coarse wood pieces; cutting other wood material to substantially flat shavings; applying 14% of a binder substance to said flat wood shavings so as to obtain humid binder treated flat wood shavings; forming a first humid surface layer of said humid binder treated flat wood shavings; superimposing on said first surface layer a slightly humid porous core layer of said slightly humid binder treated coarse wood pieces; superimposing upon said porous core layer a second humid surface layer of said humid binder treated flat wood shavings; and applying a *pressure of substantially 10 kilogram per square cm. at a temperature of substantially 120 ° C.* to said superimposed layers so as to cause a firm adhesion of said binder treated flat wood shavings in said surface layers and of said binder treated coarse wood pieces in said porous core layer to one another and to cause also a firm adhesion of the layers themselves to one another, while permitting the steam formed by applying heat to escape into said porous core layer of coarse wood pieces, thereby obtaining a composite wooden board composed of a porous core layer and two substantially water-impervious surface layers firmly adhering to said porous core layer and having a high tensile strength. [Italics supplied by us.]

It was the view of the board that the limitation which rendered the claim allowable over the Loetscher patent was that reading, " \* \* \* applying a pressure of substantially 10 kilograms per square cm. at a temperature of substantially 120 ° C. to said superimposed layers \* \* \* ." The corresponding limitation in claim 40 reads, " \* \* \* applying a pressure of substantially 25 kilogram [sic] per square cm. at a temperature of substantially 150 ° C. to said superimposed layers \* \* \* "

The Loetscher patent contains no such specific limitations.

It will be observed that in the first portion of claim 37 some specific percentages of the binder substances of certain of the ingredients of the complete composition, to which the described pressure is applied, are named—that is, (a) 3.5% of a binder substance is applied to the coarse wood pieces and (b) 14% is applied to the flat wood shavings. In allowed claim 40 the corresponding percentages are respectively 4% and 10%.

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*It should be understood that those percentage limitations formed no part of the basis upon which the board predicated its allowance of those claims.*

Obviously, the binder substance in both instances is an ingredient of one of the physical elements used and does not itself constitute a process step.

Specific limitations relating to the ingredients named in the claims, *but not forming steps of the process*, are present in rejected claims 35, 36, 39, 45, 56, and 58.

In that particular, what may be denominated the "binder substance" limitations in claim 36 are expressed in the identical phraseology used in claim 37, and those limitations in claim 39 are expressed in the identical phraseology used in claim 40, *but neither claim 36 nor claim 39 has the pressure limitation upon the basis of which claims 37 and 40 were allowed by the board, nor is that pressure limitation found in claims 35, 45, 56, and 58.*



The limitation in claim 35 defines the wood pieces as "having substantially a length between 5 and 50 mm., a width between 5 and 10 mm. and a thickness of at least 1 mm."

The limitation in claim 45 is identical with that in claim 35 as to dimensions, and there is added, "drying said coarse wood pieces to a humidity of approximately 5%." Claim 45 also provides for the application of a "relatively larger quantity" of a binder substance "to said flat wood shavings," and for "keeping said humid flat wood shavings at a humidity of approximately 18%."

Claim 56 provides for "making humid coarse wood pieces from a humid wooden material," and for "Cutting other humid wood material to humid substantially flat shavings; said humid substantially flat shavings being approximately five (5) times as humid as said humid coarse wood pieces."

In claim 58, it is recited that the binder substance applied to the flat wood shavings shall be of "a relatively large quantity" so as to obtain "humid binder treated flat wood shavings approximately 3 1/2 to approximately 5 times as humid as said coarse wood pieces."

When clearly studied, it becomes apparent that the specific limitations recited in all the claims before us relate *only* to the physical structure of (a) the wooden pieces and (b) the shavings which constitute materials for use in appellant's final product.

We, therefore, find no error in the following statement of the Board of Appeals:

A careful appraisal of the claims reveals that, while appellant defines his process in varying degrees of specificity; in all but claims 37 and 40 he fails to define the pressure and temperature steps which, in our opinion, are critical in the process of manufacturing his composite wooden board, composed of a *porous* core layer and two substantially water-impervious surface layers, in such terms as to patentably differentiate over the Loetscher process which relies upon similar steps to produce a multiple layer board that is *hard*, relatively water-proof, and *dense throughout its thickness*. Instead of pointing out, in a clear, distinct and definite manner how he uses pressure and temperature in the production of his board, appellant relies upon statements of result, \* \* \* to distinguish his process over the prior art. Additional statements of function and/or result are referred to by the Examiner in his action of October 23, 1951 Paper No. 38 refusing the allowance of claims 55 to 58 inclusive.

[5] Statements of function and/or result cannot be relied upon to differentiate a process claim over a prior art process. In re Potts, 73 USPQ 48, 34 C.C.P.A. 915, 600 O.G. 168, 1947 C.D. 249. [Italics quoted.]

During the prosecution of appellant's application in the Patent Office, numerous affidavits were filed in an effort to establish a patentable distinction between the claims of the application and the disclosures in the Loetscher patent. These have received careful study. Even if it be granted that they show appellant's *product* to be different in some respects from the *product* of the patent, they do not disclose any patentable differences as to the *processes*.

In so far as the affidavits may have any bearing upon commercial success, it seems sufficient to say that whatever commercial success has been attained is due to the finished product, and, it may be added, appellant was allowed process claims which apparently afford him and his licensee process protection.

It is suggested in the brief for appellant that some of the allowed claims fail to show specific values for the pressure and temperatures used in carrying out appellant's process. It is assumed that by making that suggestion it was intended to imply that other of the appealed claims which do not show specific pressure and temperature values should be allowed because some of the allowed claims do not show such values.

[6] As to this, it is deemed sufficient to say that if any error was made by the Primary Examiner in that respect (the claims allowed by the board show such values) it was not an error of which

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appellant may be heard to complain, since it inured to his benefit.

[7] Patentability of appealed claims may not be determined upon the basis of allowed claims in the application. Under well established legal principles, comparison must be made with prior art. In re Zalkind, 28 C.C.P.A. (Patents) 959, 118 F. 2d 356, 49 USPQ 97 .

The decision of the Board of Appeals is affirmed.

- End of Case -